

CLAIMS

1. Device for carrying a preform in the temperature condition oven of a facility for blow forming containers made of thermoplastic material, of the type in which the preform (12) is obtained by injection molding and comprises, at an axial upper end of its body (32), a tubular neck (36), which is directly injected to its final form, and of the type in which the preform (12) is held on the carrying device (14) by a gripping device (10) having gripping claws (52) that enclose an outer surface of the neck (36) to hold the preform (12),

characterized in that the gripping device (10) comprises an inner core (62) that penetrates axially inside the neck (36), such that it presents a lower transverse surface (64) which, when the preform (12) is in place on the gripping device (10), is substantially axially situated at the boundary between the neck (36) and the body (32) of the preform (12), and in that the lower transverse surface (64) of the core (62) forms a reflecting surface for the heating energy provided by the oven.

15 2. Carrying device according to claim 1, characterized in that the diameter of the core (62) is substantially equal to, but less than, the inside diameter of the neck (36) of the preform (12).

20 3. Carrying device according to either of the preceding claims, characterized in that the core (62) is extended upward in the form of a radiator (66, 68) that allows the heat absorbed by the core (62) to be dissipated.

25 4. Carrying device according to any of the preceding claims, characterized in that the gripping claws (52) are made in the form of a bell (44) open at the bottom, inside which the neck (36) of the preform (12) is axially engaged, the bell (44) being provided with a series of radial slots (50) that are angularly distributed so as to delimit, between two successive slots, one gripping claw (52) that is elastically radially deformable.

5. Carrying device according to claim 4, characterized in that the bell (44) is formed from a circular upper transverse plate (45), from which a tubular skirt (46) extends axially downward, the inside diameter of the skirt (46), at least for part of its length, being of smaller

diameter than the outside diameter of the neck (36), so that the claws (52) engage on the neck (36) by tightening it radially.

6. Carrying device according to claims 4 or 5, characterized in that the bell (44) is made of plastic.

5 7. Carrying device according to any one of claims 4 to 6, characterized in that it has a circular spring (54) that encircles the bell (44) at the lower end of the claws (52) to pull them radially inward.

8. Carrying device according to any of the preceding claims, characterized in that the gripping device (10) is rotatably mounted around its axis (A1) on the carrying device (14, 18),

10 which also carries the ejection means, making it possible to loosen the preform (12) from the gripping device (10); the ejection means are arranged above the gripping device (10) and have at least one finger (78) that extends axially downward, and it is provided with means (16, 28, 30) for the relative axial displacement of the gripping device (10) and ejection means (78) in such a way that, during a relative ejection stroke, the ejection finger (78) is placed against

15 the preform (12) in order to move it axially downward with respect to the gripping device (10).

9. Carrying device according to claim 8, characterized in that the gripping device (10) is mounted so as to be axially movable on the carrying device (14, 18), and the ejection means (78) are attached axially, but rotatably movable with respect to the carrying device (14, 18).

20 10. Carrying device according to either one of claims 8 or 9, characterized in that taken in combination with claim 5, during a relative ejection stroke, the ejection finger (78) passes through an orifice (80) in the upper plate (45) of the gripping bell (44) and is received in an aperture (82) made in the periphery of the core (62).

11. Temperature conditioned oven for a plastic container blow forming facility,
25 characterized in that it has a carrying device incorporating any one of the preceding characteristics.